PERFORMANCE WORK STATEMENT

Contract Number EP-C-08-010 Scientific Consulting Group Work Assignment Number: 02-50 Amendment 1

Title: Technical Editing Following Peer Review of two related draft documents entitled "Using Probabilistic Methods to Enhance the Role of Risk Analysis in Decision-Making with Case Study Examples," and a corresponding summary for managers entitled "Using Probabilistic Methods to Enhance the Role of Risk Analysis in Decision-Making Managers' Summary,""

Scope of Work Reference:

Task: 2.2

Period of Performance:

Date of Issuance through November

30, 2010

Work Assignment COR:

Julie Fitzpatrick

Office of Science Advisor

U.S. EPA (8105-R)

Office of the Science Advisor 1200 Pennsylvania Avenue, N.W.

Washington, D.C. 20460 Telephone: (202) 564-4212

Fax: (202) 565-2910

Alternate Work Assignment COR:

Michael Broder

Office of Science Advisor

U.S. EPA (8105-R)

Office of the Science Advisor 1200 Pennsylvania Avenue, N.W.

Washington, D.C. 20460 Telephone: (202) 564-3393

Fax: (202) 565-2910

Project Officer:

Verla Sutton-Busby U.S. EPA (8102R)

Office of Research and Development 1200 Pennsylvania Avenue, N.W.

Washington, D.C. 20460

Telephone: (202) 564-6808

Fax: (202) 565-2910

1. BACKGROUND

Various stakeholders, inside and outside the Agency, have called for a more comprehensive characterization of risks, including uncertainties, in particular those decisions protecting more sensitive or vulnerable populations and life stages. Therefore, the Office of the Science Advisor of the EPA, together with EPA's Science Policy Council and members of EPA's Risk Assessment Forum (RAF), identified a need to examine the use of probabilistic approaches in Agency risk assessment and risk management. An RAF Technical Panel developed two white papers, a main paper entitled "Using Probabilistic Methods to Enhance the Role of Risk Analysis in Decision-Making With Case Study Examples," and a corresponding summary for managers entitled "Using Probabilistic Methods to Enhance the Role of Risk Analysis in Decision-Making Managers' Summary." These will be referred to as the Probabilistic Risk Assessment (PRA) White Papers; and the longer document with the case Studies will be referred to as the main document. The documents provide a general overview of the value of probabilistic analyses and similar or related methods, and some examples of current applications across the Agency. The purpose of these papers is not only to describe potential and actual uses of these tools in the risk decision process, but also to encourage their further implementation in human, ecological and environmental risk analysis and related decision making. The enhanced use of probabilistic analyses to characterize uncertainty in assessments would not only reflect external scientific advice on how to further advance EPA risk assessment science, but will also help to address specific challenges faced by managers and improve confidence in Agency decisions. The draft document was prepared by the Probabilistic Risk Analysis Technical Panel of EPA's Risk Assessment Forum and has undergone internal peer review.

2. PURPOSE

This purpose of this amendment is to add an additional task to revise the PRA White Paper External Peer Review Draft documents with consideration of peer review and public comments. The contractor shall provide technical editing support to assist EPA in producing two related final draft PRA White Paper documents. The draft documents were externally peer reviewed in May of 2010, and a final external peer review report was provided in July 2010.

3. TASKS

Task 3 - Prepare Response to Comment Document.

The contractor shall develop a table to include all comments received and details on how the document was revised to address the comment or the rationale for not addressing the comment.

4. SCHEDULE OF DELIVERABLE

Provide response to comment document along with the second edited paper that is due

14 working days after receipt of report contents or comments from WA COR on first draft.

5. ACCEPTANCE CRITERIA

Final products shall be produced by the Contractor upon the EPA WA COR's approval through written technical direction. The Contractor shall provide all materials written as part of these tasks to the EPA WA COR, as per work assignment, in electronic format. Electronic versions shall be compatible with current ORD computer systems (Word and Excel) and software.

Work Assignment Other X Amendment Number: 0.000.001		United States Environmental Protection Agency					Work Assignment Number			
Contract Number	FDΔ	Washington DC 20460				2-50				
Contract Number Contract Nervice Contract Period 12/16/2008 To 11/30/2012 Title of Work Assignment/SF Site Name Dec Contractor Tech Edit - Pear Review of Doc Contractor SCIENTIFIC CONSULTING GROUP, INC, THE 2.2	LIA		Work Assignment					X Amend	ment Number:	
Part				_				0000	01	
Part	Contract Number		Contract Period 127	/16/2008 To	11/30/2	2012				
Specify Spec				•						
Superfund		<u>-</u>	base			ragraph of Co		ICCI ICCI	0.01 000	
Purpose		SULTING GROU	JP, INC, THE	' '						
Work Plan Approval	Purpose:			Work Assignment C	liose-Out		Period of Performa	ance		
Superfund		-	<u></u>	- -						
Superfund	一	-		_ increment analis	y		From 04/21	/2011 To 1:	1/30/2011	
SuperLine		ork Plan Approval					1,	,		
Note To report additional accounting and appropriations date use EPA Form 1900-68A	Comments:									
Note To report additional accounting and appropriations date use EPA Form 1900-68A	4									
Note To report additional accounting and appropriations date use EPA Form 1900-68A										
Note: To report additional accounting and appropriations date use EPA Form 1900-69A Shaffroined Cost OrgCode Max 4) DON Max 4 Max 8 Max 7 Max 8 Max 7 Max 9 Ma	Superfund		Acco	ounting and Appro	priations Data	<u> </u>		X	Non-Superfund	
Max 2			Note: To report additional ad	counting and appropri	ations date use I	EPA Form 190	00-69A.			
Max 4										
Max 4				B	01/2010	A	Anllana) (Canta)	Site/Project	Cost OralCode	
Authorized Work Assignment Ceiling						Amount (L	ioliars) (Cents)			
Authorized Work Assignment Ceiling	1									
Authorized Work Assignment Ceiling Contract Period: Cost/Fee: LOE: Total: Work Plan / Cost Estimate Approvals Contractor WP Dated: Cost/Fee: LOE: Work Assignment Manager Name Julie Fitzpatrick Work Assignment Manager Name Julie Fitzpatrick Froject Officer Name Verla Sutton—Busby Froject Officer Name Verla Sutton—Busby (Signature) (Date) Other Agency Official Name (Signature) (Date) FAX Number: Branch/Mail Code: Phone Number: 202–564–6808 FAX Number: FAX Number: Branch/Mail Code: Phone Number: 202–564–6808 FAX Number:	2									
Authorized Work Assignment Ceilling Contract Period: CosVFee: LOE: 12/16/2008 To 11/30/2012 This Action: Work Plan / Cost Estimate Approvals Contractor WP Dated: CosVFee: LOE: Work Assignment Manager Name Julie Fitzpatrick Work Assignment Manager Name Julie Fitzpatrick Phone Number: 202–564–4212 FAX Number: Project Officer Name Verla Sutton-Busby Eranch/Mail Code: Phone Number: 202–564–6808 FAX Number: Other Agency Official Name Renita Tyus Renita Tyus Branch/Mail Code: Phone Number: Cost Fax Number: Phone Number:										
Authorized Work Assignment Ceiling Contract Period:										
Authorized Work Assignment Ceilling Cost/Fee: LOE:										
Cost/Fee: COE: COE: COE: COE: COE: COE:	5		Aut	horized Work Assi	anment Ceilin	n				
12/16/2008	Contract Period	Cost		11011204 110111 1001	91111101111					
Total:	12/16/2008 To 11/30/2012								_	
Contractor WP Dated: Cost/Fee: LOE: Cumulative Approved: Cost/Fee: LOE: Work Assignment Manager Name										
Contractor WP Dated: Cost/Fee: LOE: Cumulative Approved: Cost/Fee: LOE: Work Assignment Manager Name										
Contractor WP Dated: Cost/Fee: LOE: Cumulative Approved: Cost/Fee: LOE: Work Assignment Manager Name	Total:									
Cumulative Approved: Cost/Fee: Work Assignment Manager Name Dulie Fitzpatrick Fhone Number Phone Number Project Officer Name Verla Sutton-Busby Branch/Mail Code: Phone Number: FAX Number: Branch/Mail Code: Phone Number: 202-564-4212 Phone Number: 202-564-6808 FAX Number: Other Agency Official Name Other Agency Official Name (Signature) (Date) FAX Number: Branch/Mail Code: Phone Number: FAX Number:			Wo	ork Plan / Cost Esti	mate Approva	als				
Work Assignment Manager Name Julie Fitzpatrick (Signature) (Date) FAX Number: FAX Number: (Signature) (Signature) (Signature) (Date) FAX Number: Project Officer Name Verla Sutton—Busby (Signature) (Date) FAX Number: Phone Number: 202-564-6808 FAX Number: Branch/Mail Code: Phone Number: FAX Number: Contracting Official Name Renita Tyus Branch/Mail Code: Phone Number: FAX Number:	Contractor WP Dated:		Cost/Fee:			LOE	LOE:			
Phone Number 202-564-4212	Cumulative Approved:		Cost/Fee:			LOE	:			
Phone Number: 202-564-4212 FAX Number: Project Officer Name Verla Sutton-Busby Fax Number: 202-564-6808 Fax Number: 202-564-6808 Fax Number: 202-564-6808 Fax Number: Phone Number: 202-564-6808 Fax Number: Branch/Mail Code: Phone Number: Fax Nu	Work Assignment Manager	Bra	Branch/Mail Code:							
Project Officer Name Verla Sutton-Busby Branch/Mail Code: Phone Number: 202-564-6808 FAX Number: Other Agency Official Name Branch/Mail Code: Phone Number: Branch/Mail Code: Phone Number: FAX Number: Phone Number: FAX Number: Branch/Mail Code: Phone Number: FAX Number: FAX Number: Branch/Mail Code:										
Project Officer Name Verla Sutton-Busby Branch/Mail Code: Phone Number: 202-564-6808 FAX Number: Other Agency Official Name Contracting Official Name Renita Tyus Branch/Mail Code: Phone Number: FAX Number: FAX Number: FAX Number: Branch/Mail Code: Phone Number: FAX Number: Branch/Mail Code: Phone Number: FAX Number: Branch/Mail Code:										
Phone Number: 202-564-6808 (Signature) (Date) FAX Number: Other Agency Official Name Branch/Mail Code: Phone Number: (Signature) (Date) FAX Number: Contracting Official Name Renita Tyus Branch/Mail Code:	Project Officer Name Ve:	Bra	Branch/Mail Code:							
Other Agency Official Name Other Agency Official Name Contracting Official Name (Signature) (Date) FAX Number: Phone Number: FAX Number: FAX Number: FAX Number: FAX Number: FAX Number: Branch/Mail Code:										
Other Agency Official Name Contracting Official Name Contracting Official Name Renita Tyus Branch/Mail Code: Phone Number: FAX Number: Branch/Mail Code: FAX Number: Branch/Mail Code:		(Signature)		(Date)					
Phone Number: (Signature) (Date) FAX Number: Contracting Official Name Renita Tyus Branch/Mail Code:	Other Agency Official Name									
Contracting Official Name Renita Tyus (Date) FAX Number: Branch/Mail Code:			Phone Number:							
Contracting Official Name Renita Tyus Branch/Mail Code:										
I Thore trainbot. SES 407 2054	- · · · · · · · · · · · · · · · · · · ·						Phone Number: 513-487-2094			
		(Signature) (Date)					FAX Number: 513-487-2109			

				United States Environmental Protection Agency					Work Assignment Number			
EPA			Officed Of		gton, DC 20460		2-51					
		Ά	Work Assignment					Other Amendment Number:				
					WOLK WasiAllinglif							
Con	tract Nu	mber		Contra	ct Period 12/	16/2008 To	11/30/2	011	Title of Work Assign	ment/SF Site Nam	ie	
	77.0.00.010						.011	Title of Work Assignment/SF Site Name Support for EPA Risk Assess				
				Base		Option Period Nur Specify		agraph of Co		TEN VION	100000	
	Contractor Specify Section and paragraph of Contract SOW SCIENTIFIC CONSULTING GROUP, INC, THE 2.2											
Purpose: X Work Assignment Work Assignment Close-Out								Period of Performance				
				gnment Amendment	,	Incremental Fundin						
			=	-	<u> </u>	_ morement areas	9		From 06/07/2011 To 11/30/2011			
Con	nments:		Work Plan	Approval								
0011	miorito.											
		Superi	und		Acco	ounting and Approp	oriations Data			Х	Non-Superfund	
				Note: To	report additional ac	counting and appropri	ations date use E	PA Form 190	00-69A.			
	SFO fax 2)											
,										Olto (Dunio at	Orah OralOrada	
Line	DC (Max		Budget/FY (Max 4)	Appropriation E Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (D	Oollars) (Cents)	Site/Project (Max 8)	Cost Org/Code (Max 7)	
1				T					., .,		<u> </u>	
2									•			
3											<u> </u>	
4												
5	·····					· · · · · · · · · · · · · · · · · · ·						
-					Aut	norized Work Assi	anment Ceilin	a		<u> </u>		
Authorized Work Assignment Ceiling Contract Period: Cost/Fee: LOE:												
12/16/2008 To 11/30/2011									_			
This Action:												
-												
Tota	al:)								
						rk Plan / Cost Esti	mate Approva					
L	tractor W				Cost/Fee:			LOE				
Cun	nulative A	Approve	ed:		Cost/Fee:			LOE	:: 		<u> </u>	
Work Assignment Manager Name Julie Fitzpatrick								Branch/Mail Code:				
						Pho	Phone Number 202-564-4212					
(Signature) (Date)						FA	FAX Number:					
Project Officer Name Verla Sutton-Busby						Bra	Branch/Mail Code:					
						Pho	Phone Number: 202-564-6808					
	-		(Signa	nture)		(Date)	FA	FAX Number:			
Other Agency Official Name							Bra	Branch/Mail Code:				
					Pho	Phone Number:						
	(Signature) (Date)						FAX Number:					
Contracting Official Name Renita Tyus						<u> </u>	Branch/Mail Code:					
							Phone Number: 513-487-2094					
(Signature) (Date)					FA)	FAX Number: 513-487-2109						

PERFORMANCE WORK STATEMENT

Contract Number EP-C-08-010 Scientific Consulting Group Work Assignment Number: 2-51

Title: Support for EPA Risk Assessment Forum, Eco-Risk Oversight Committee Project: Enhancing the Use of Ecological Risk Assessment in Agency Decision Making

Scope of Work Reference: Task: 2.2

Period of Performance: Date of Issuance through November 30, 2011

Work Assignment COR:

Julie Fitzpatrick
Office of Science Advisor
U.S. EPA (8105-R)
Office of the Science Advisor
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
Telephone: (202) 564-4212
Fax: (202) 565-2910

Alternate Work Assignment COR:

Lawrence Martin
Office of Science Advisor
U.S. EPA (8105-R)
Office of the Science Advisor
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460
Telephone: (202) 564-6497
Fax: (202) 565-2910

Project Officer: Verla Sutton-Busby U.S. EPA (8102R)

Office of Research and Development 1200 Pennsylvania Avenue, N.W.

Washington, D.C. 20460 Telephone: (202) 564-6808 Fax: (202) 565-2910

1. BACKGROUND

The Eco-Risk Oversight Committee of the EPA Risk Assessment Forum has initiated a project to enhance the use of ecological risk assessment in Agency decision making to address the challenges of designing and communicating ecological risk assessment studies and results in a manner useful to risk managers and decision makers.

During the September 2009 Ecological Risk Assessors Colloquium and follow-up discussions, Agency ecological risk assessors identified the limited use of the results of ecological risk assessment by Agency decision makers as a significant challenge. Although the Framework for Ecological Risk Assessment was published in 1992, and the Guidelines for Ecological Risk Assessment was published in 1998, recent reports (SAB October 2007, NRC 2008) urge the Agency to make better use of ecological risk

assessment findings. The use of ecological risk assessment results is not consistent across programs and the results are not having the impact expected on decision making. It is important that ecological risk managers and decision makers are confident using ERA information in environmental policy & decisions and that EPA has and can demonstrate environmental policy & decisions that fully consider the range of human risk assessment and ecological risk assessment information available. To achieve these ends, EPA must ensure that ecological risk assessment information meets risk managers' and decision makers' needs and is communicated to risk managers and decision makers with proper context and in useable form.

2. PURPOSE

The primary purpose of this work assignment is to address concerns that the Agency is not taking full advantage of ERA information in its decision making. Elements of this include:

• Investigate risk assessors development of assessment information and manager's use of assessment information in Agency decision making;

• Development of recommendations for improving communication of risk assessment findings to improve their use by decision makers; and

• Development of tools responsive to needs identified in poll and agreed to by technical panel.

3. TASKS

Task Area 1: Prepare Work Plan and Cost Estimate

The Contractor shall prepare its work plan, budget estimate, and schedule of deliverables, within 15 calendar days after receipt of work assignment

The work assignment requires strong expertise in the design and execution dialog/question formation/interrogative discussion among contractor staff and discussants, and tools for communication between scientists and decision makers.

Task Area 2: Support Technical Panel Interrogative Discussion of EPA Risk Assessors and Decision Makers

a) Design and Conduct dialogs collaboratively with technical panel

i) Identify participants and dialog mechanism: Complete in July 2011

ii) Design dialogs: Complete in July 2011

• For risk assessors topics to be addressed may include: How is ERA information being used in Agency decisions, policy, guidance, etc. that you are familiar with? What are the apparent impediments to its use?

• For risk managers and decision makers illustrative question may include: What ERA results are useful to you? What aspects of ERA have limited its value in your decisions?

iii) Conduct dialogs (e.g. phone polls and/or focus groups): Complete in Sentember, 2011

b) Summarize, Evaluate Data, and Report/Discuss Findings: Complete in October, 2011

i) Produce a summary and findings report

ii) Present summary and findings report to the technical panel

Task Area 3: Recommend Communication Tools: Complete in November, 2011

a) Based on the findings of the engagement with risk assessors and decision makers, the contractor shall recommend (with rationale) the preparation of:

i) Guidance to risk assessors on how to engage decision makers in ERA design so the results of ERAs will be of value to them.

- ii) Guidance to risk assessors on how to present ERA information in a manner that makes it useful and important to decision makers.
- iii) Guidance to decision makers on ERA information and its utility in support of decision making.
- iv) Informational materials for managers on the nature of ecological risks.
- v) Webinar or seminar training or information sharing.
- vi) Other tools and products.

4. SCHEDULE OF DELIVERABLES AND REPORTING REQUIREMENTS

Within five business days of receipt of work assignment, the contractor shall convene a conference call (not to exceed 1 hour) with the EPAWA COR, and appropriate contractor staff to clarify outstanding questions and confirm the schedule and specific tasks for the work assignment.

The contractor shall hold weekly conference calls with the EPA WA COR to provide updates on project status, next steps, and resolve challenges. The contractor shall report the number of hours and funds expended on a monthly basis in each monthly report. The contractor shall initiate additional communications with the EPA WA COR should developments arise that will affect the conduct or schedule of this work assignment.

The contractor shall participate in monthly to twice monthly technical panel conference calls and meetings.

Due Date	Product				
Task 1 – Work plan and cost estimate	Within 15 calendar days after receipt of				
-	work assignment				
Task 2 – Support Technical Panel Interrogative Discussion of EPA Risk Assessors and Decision Makers Task 3 – Recommend Communication	Design and Conduct dialogs collaboratively with technical panel. Identify participants and dialog mechanism. July 2011 Design dialogs. July, 2011 Conduct dialogs (e.g. phone polls and/or focus groups): September 2011 Summarize, Evaluate Data, and Report/Discuss Findings: October, 2011 Based on findings, the contractor shall				
Tools Tools	recommend the preparation of various possible tools. November, 2011				

5. ACCEPTANCE CRITERIA

Final products shall be produced by the Contractor upon the EPA WA COR's approval through written technical direction. The Contractor shall provide all materials written as part of these tasks to the EPA WA COR, as per work assignment, in electronic format. Electronic versions shall be compatible with current ORD computer systems (Word and Excel) and software.

6. MANAGEMENT CONTROLS:

Periodic meetings between the EPA and contractor work assignment managers are encouraged to discuss any questions that may arise during performance or completion of this work assignment. At the EPA WA COR's discretion, these meetings may occur via teleconference or video conferences. The contractor shall document these meetings and submit copies of this correspondence to the EPA WA COR.

The EPA WA COR may identify one or more EPA technical representatives for this work assignment. Interaction between the contractor and any EPA technical representative(s) designated by the EPA WA COR is solely for the purpose of presenting and discussing the information, analyses, results, or presentations related to this work assignment. The interaction will be technical communication vice technical direction. Per the technical direction clause EPAAR 1552.237-71 of the contract, the EPA PO COR and the EPA WA COR or alternate EPA WA COR are the only representatives of the CO authorized to provide technical direction.

Per the technical direction clause, the CO and PO will be provided with copies of all technical direction.

7. CONFIDENTIALITY

Some of the information to be edited under this task may be internal information that is not ready for public distribution. The Contractor shall not discuss the contents of the document with anyone not specified as a participant in the document review process or its preparation.

8. TRAVEL

Per the contract clause Local LC-31-08, Approval of Contractor Travel, any non-local travel directly chargeable to this work assignment shall be submitted and approved by the EPA Project Officer.

Limited travel by the contractor to meetings with the EPA WA COR and other technical directors is anticipated under this work assignment. A reasonable expectation for travel will be 3 half day trips to EPA headquarters, and an overnight trip to a risk assessment meeting in Chicago to conduct interviews or a focus group discussion. Proposed travel dates will be provided thru technical direction